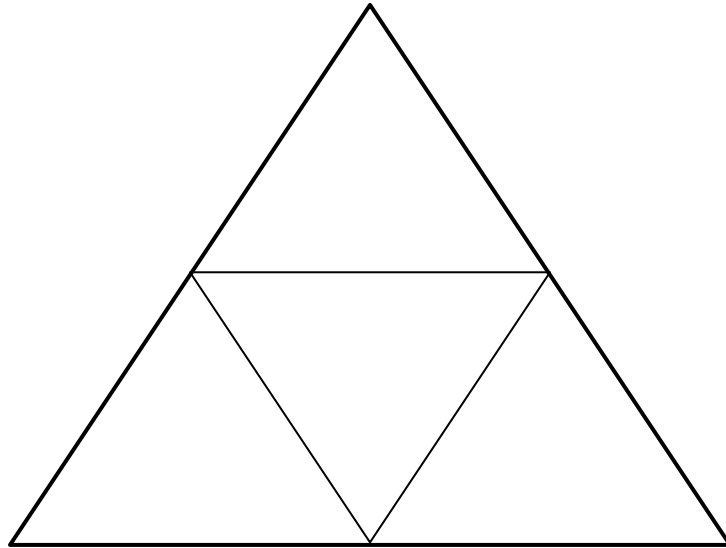


How Many Triangles?

NAME _____

1. When the midpoints of each side of a triangle are connected, they divide the figure into four smaller triangles, as shown below. Now, divide each of these four triangles by connecting the midpoints of their sides. Repeat this process several times. How many triangles do you think you will get? With a partner, try this experiment. Write a rule that describes what you discover in the number patterns.



2. As above, the midpoints of the triangle have been joined. Shade in the middle triangle, and then join the midpoints of the sides of the other triangles. Repeat this process at least two more times. What patterns do you think will emerge? Compare the sizes of the triangles. How far do you think you can take this process? What conclusions can you draw from these experiments?

